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An Exploratory Study of the Validity of the MBTI® Team Report

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ABSTRACT

This descriptive, exploratory study evaluated the face validity of the MBTI® Team Report. MBTI® Team Report recipients (n = 51) volunteered to complete a 19-item questionnaire (TR Research Questionnaire) concerning their perceptions of the accuracy and usefulness of the information in their MBTI® Team Reports. This study focused on team strengths and weaknesses, problem-solving strategies, and team action plans. Overall, participants expressed favorable perceptions of the MBTI® Team Report in all three areas. The study also investigated the effect of the interval of time between receiving the MBTI® Team Report and completing the questionnaire (up to 1 week, 2–4 weeks, and 5+ weeks), as well as the effect of the status of the report recipient (team leader or team member). In general, the longer the interval, the less positive the responses. Team leaders assessed five items significantly more positively than team members. Although this study indicates a favorable assessment of the MBTI® Team Report overall, further studies of the effectiveness of the MBTI® Team Report are needed, especially its validity over intervals of time.

INTRODUCTION

There has been a veritable explosion in the use of teams in work organizations during the last decade in the United States (Cameron & Whetten, 2002). For example, Lawler, Mohrman, and Ledford (1995) reported that 79% of Fortune 1000 Companies used self-managing work teams, and Lawler (1998) reported that 91% used employee work groups. As early as 1993, a survey of 1,293 respondents by the American Society for Quality Control (ASQC) and the Gallup Organization found that over 80% reported their organizations used some form of work-team activity (Cameron & Whetten, 1998).

In the burgeoning literature on teams and team building, the work of several scholars stands out. For over 20 years, Larson and LaFasto (2001) studied work teams, and in 1989 presented an 8-element model based on a 3-year study conducted on a diverse range of teams. Katzenbach and Smith (1993) likewise studied teams to describe effective teams. They identified key lessons about effective and high-performance teams from interviews conducted with hundreds of people from more than 50 different teams in 30 different companies. In 1998, Katzenbach described teams that report directly to CEOs (teams at the top) and provided guidelines for enabling senior executives to function as teams. Wellins, Byham, and Wilson (1991) surveyed over 500 organizations known to use self-directed teams and conducted interviews in 28 of those organizations to document how performance improved when people work together in teams rather than alone.

Descriptive studies like these indicate that the ability to lead and manage teams has become a requirement for many employees in work organizations. Such organizations invest considerable resources in training and development activities to build and maintain effective teams, and thus have a vested interest in, and demand for, effective team-building tools.

Several team-building tools were developed by members of the Myers-Briggs Type Indicator® (MBTI®) community before the publication of the MBTI® Team Report (Hammer, 1994). These tools are noteworthy responses to the demand for team-building instruments, because they extend the theory of psychological type from individual interpretation to the interpretation of teams and organizational dynamics. Hirsh developed four such tools:

1. *Using the MBTI® in Organizations* (Hirsh, 1991). This is a resource guide for workshop leaders to use for presentations in organizations.

2. *Introduction to Type and Teams* (Hirsh, 1992). This is from the *Introduction to Type® Series*.

3. *MBTI® Team Building Program* (Hirsh, 1992). Hirsh (1992) presents a "Leaders Resource Guide" and a

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"Team Member's Guide" for people who are preparing for and conducting team-building sessions.

4. *Introduction to Type in Organizations* (Hirsh & Kummerow, 1998). Like Hirsh (1992), this is from the *Introduction to Type® Series*.

Bridges (1992) focused on the whole organization, and he reasoned that organizations differ in character, just as individuals differ in psychological type. An organization's character is its personality, its climate, its way of feeling and acting like itself. "Everyone knows that organizations differ in their size, structure, and purpose, but they also differ in *character...*" (p.1). Bridges created the "Organizational Character Index®" to assess an organization's "type" the way the MBTI tool assesses an individual's type.

In 1994, Hammer first published the MBTI® Team Report to help members of intact teams learn how their individual types work collectively. The MBTI® Team Report follows individual interpretations of the MBTI measure (Myers, McCaulley, Quenk, & Hammer, 1998), providing value-added information about a team or work group as a unit of analysis.

An MBTI® Team Report identifies (1) a team type from the composite of preferences among team members, and (2) a team similarity index indicating how similar or dissimilar team members' communication preferences are likely to be. These form the theoretical basis for describing the topics covered in the MBTI® Team Report: a team's strengths and weaknesses, its problem-solving strategies, its sources of conflict and preferred ways of resolving disputes, and an action plan with suggestions for team improvement.

Information included in the MBTI® Team Report is especially important when teams have an under-representation or absence of particular preferences. For example, when team members understand the imbalance of preferences on the team, they are able to analyze why others see things differently, and they are able to remain alert to potential blind spots. One consultant reported, "Teams are usually very interested in understanding the team functions because they have a stake in the outcome. The information is very practical and valuable to team members while helping

them to understand the individual types better, too" (W. Cascio, personal communication, February 2, 2000).

Five validity studies of the MBTI instrument are relevant to the present study. Carskadon (1975) and Carskadon and Cook (1982) examined the perceived accuracy of the 16 type descriptions. McCarley and Carskadon (1986) studied the validity of the 16 types as presented by Myers and Myers (1980) and Keirsey and Bates (1978). Ruhl and Rodgers (1988) researched the perceived accuracy of the 16 type descriptions. Fleenor and Pearman (1995) examined perceived differences of 16 types (self-report and observed). Although the research questions and hypotheses in these studies varied, all investigated the validity of the 16 types as perceived by the subjects, and all found similar results—evidence that the 16 types view themselves differently. The convergence of these findings is important, because the use of peoples' perceptions as data can seem questionable. In the present study, as in the validity studies of the MBTI measure, peoples' perceptions were examined.

Hammer (1996) reported that the validity of the MBTI® Team Report was still untested. The present study was undertaken to evaluate the efficacy of the MBTI® Team Report in providing accurate and useful information. This descriptive research had five foci in the three areas of the MBTI® Team Report: First, it sought to establish whether the strengths and weaknesses described in the MBTI® Team Report were congruent with the team members' perceptions of their actual strengths and weaknesses and the extent to which the team members find this information useful. Second, the study sought to establish the degree to which team members perceived information about their problem-solving processes as accurate and useful. Third, this research assessed the extent to which information from the personalized action plan was perceived as useful as evidenced by the team taking action on some of the suggestions. Fourth, this study assessed the effect of the interval of time between receiving the MBTI® Team Report and participation in this study. Finally, the study compared the responses of team leaders and team members.

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METHOD

Participants. The 51 participants worked in diverse organizations across the United States as members or leaders of intact work teams. All knew their MBTI types and all received an MBTI® Team Report specific to their team. CPP, Inc., the publisher of the MBTI instrument, provided access to the subjects, and because anonymity was required for the clients, the total population was unknown and no response rate could be calculated. A diverse array of consultants, organizations, and industries were sampled to address the issue of generalizability. The respondents were from 10 different states and 7 different industries, which included manufacturing, service, government, professional service, nonprofit, CPA, medical/ healthcare, and insurance/ healthcare industries. The largest respondent group was from manufacturing (19 people or 37.25% of the sample). Medical/Healthcare made up 17.6% of the sample, and all others comprised less than 10%. The interval of time between receiving the MBTI® Team Report and filling out the questionnaire for this study varied from 1 week to 16 weeks. Nine of the 51 respondents were team leaders. Because returning the questionnaire was confidential, there was no determination of whether entire teams participated.

Research Design. This research was a descriptive study of perceived levels of accuracy and usefulness of information contained in the MBTI® Team Reports. There were nine descriptive variables and one exploratory variable as follows: 1) accuracy of team strengths, 2) accuracy of team weaknesses, 3) usefulness of team strengths, 4) usefulness of team weaknesses, 5) accuracy of problem-solving process, 6) usefulness of problem-solving process, 7) accuracy of action plan, 8) usefulness of action plan, 9) overall satisfaction with MBTI® Team Report, and 10) team leader or team member status. For questions 1–16 on the questionnaire, the frequency of each response (0–4) was determined and the median was calculated as a measure of central tendency, because of the ordinal scale of answers for the 9 descriptive variables. The 10th variable was measured by comparing the medians of the two

independent groups (team leaders and team members).

Instruments. Two instruments were used for this study: the MBTI® Team Report (Hammer, 1994), and the TR Research Questionnaire. The latter was developed and used to assess the respondents' perceptions of information in three sections of the MBTI® Team Report. The questionnaire consisted of 19 questions. The first 16 questions were answered by marking a point on a 5-point Likert scale, on which the choices were "No, none" (0), "No, mostly not" (1), "Some" (2), "Yes, mostly" (3), and "Yes, to a high degree" (4). These 16 questions were divided into the following four sections (**SEE TABLE 1, PAGE 5**): *Strengths and Weaknesses* (questions 1–4), *Problem-Solving Process* (questions 5–9), *Action Plan* (questions 10–14), and *Overall Satisfaction* (questions 15–16). Three descriptive questions (number of weeks elapsed, leader or member status, and industry) were asked as fill-in-the-blank questions. (These questions are not listed in **TABLE 1**.)

A complete copy of the TR Research Questionnaire is available from the author on request. Because MBTI types were not collected, there is no type table available.

Procedures. For 3 months, the TR Research Questionnaire was distributed by CPP to consultants who ordered the MBTI® Team Reports. The packets included a cover letter explaining the nature of the research, TR Research Questionnaires, and self-addressed, stamped envelopes. The consultants decided whether it was appropriate, given the nature of their work and the client situation, to pass along the questionnaire to the team leaders. Then, the team leaders decided whether they wanted to pass along the materials to the team members. Finally, each individual volunteered to participate by completing the questionnaire and sending it directly to the researcher.

RESULTS AND DISCUSSION
Strengths and Weaknesses. Questions 1–4 (**TABLE 1**) assessed respondents' perceptions of the accuracy and usefulness of information about their teams' strengths and weaknesses as presented in the MBTI® Team Report. The median answer for all four questions was 3.0 ("Yes, mostly").

> *Given the lower median scores for these two questions, more people "agreed" with the ideas in the report than "took action" on the specific suggestions in this time frame.*

Problem-Solving Process. Questions 5–9 (**TABLE 1**) assessed the extent to which respondents found information in the MBTI® Team Report about their team's problem-solving process to be accurate and useful. Four of the five questions resulted in a median score of 3 ("Yes, mostly") and one question had a median of 2 ("Some"). The four questions with higher medians all asked about *agreement* with the weaknesses and potential solutions for the teams' problem-solving process offered in the MBTI® Team Report. The question with the lower median score (Question 8) asked respondents if their team made any specific changes (*actions*) in the way they solved problems as a result of recommendations in the MBTI® Team Report.

Action Plan. Questions 10–14 (**TABLE 1**) examined the extent to which respondents perceived the information from the Personalized Action Plan section of the MBTI® Team Report to be useful in improving their team's effectiveness. Questions 10–12 had a median response of 3 ("Yes, mostly"). These were theoretical questions that asked what respondents thought. Questions 13 and 14 had a lower median response of 2 ("Some"). These were implementation questions that asked what actions the team had taken. Given the lower median scores for these two questions, more people "agreed" with the ideas in the report than "took action" on the specific suggestions in this time frame.

Number of Weeks. Question 17 investigated the effect of the time interval between when respondents received the MBTI® Team Report and when they completed the TR Research Questionnaire. The three intervals were as follows: 1 = up to 1 week, 2 = 2–4 weeks, 3 = 5+ weeks. A Kruskal-Wallis 1-way ANOVA was used to test the significance of the relationships between each of the 16 ordinal-scaled questions and the number of weeks elapsed. A significant effect for interval level was found for 4 of the 16 questions (1, 2, 15, and 16. (See **TABLE 1**.) Individuals who responded in the shortest interval (within the first week) reported significantly higher (more positive) perceptions than those who responded in the longest interval (5 weeks or more). These findings suggest that the earlier the

Table 1. Median Response, Leader and Interval Significance, for 16 Descriptive Questions

Area of TR Research Questionnaire/ Questions Asked	Median	Interval	Leader
STRENGTHS AND WEAKNESSES			
1. In your opinion, were the **Team Strengths** reported on the MBTI® Team Report (p. 6) accurate for your team at the time of the report?	3.0	Cases = 51 χ^2 = 12.97 p = .0015	
2. Were the **Team Weaknesses** identified on the MBTI® Team Report (p. 6) accurate for your team at the time of the report?	3.0	Cases = 51 χ^2 = 10.18 p = .0062	
3. Was the information for **Team Strengths** useful in understanding your team?	3.0		
4. Were the **Team Weaknesses** listed useful in understanding your team?	3.0		
PROBLEM-SOLVING PROCESS			
5. After some reflection, did you agree with the **Order of the Team's Problem-Solving Preferences?** (p. 8)	3.0		Cases = 50 z = -1.99 2-tailed p = .047
6. Did the **Potential Weaknesses of Your Team Problem-Solving Style** (p. 9) reveal problems that your team had encountered before?	3.0		
7. Did the **Problem-Solving Process** portion of the MBTI® Team Report offer useful information for your team? (pp. 8–9)	3.0		Cases = 51 z = -2.01 2-tailed p = .044
8. Did your team make any specific changes in the way you solve problems due to the information from the **Problem-Solving Process** on the MBTI® Team Report?	2.0		Cases = 50 z = -2.13 2-tailed p = .033
9. Was the **Problem-Solving Process** portion helpful to your team in solving problems differently?	3.0		
ACTION PLAN			
10. Do you know the reasons the team leader (or the team) selected to receive the MBTI® Team Report? (goals?)	3.0		Cases = 50 z = -2.16 2-tailed p = .031
11. Was the **Action Plan** (p. 12) in your MBTI® Team Report applicable to your team?	3.0		
12. Did the **Action Plan** offer advice to your team that you could use?	3.0		
13. Did your team take any of the steps provided in the **Action Plan**?	2.0		Cases = 47 z = -2.57 p = .010
14. If yes to #13, did you see positive results from taking the action steps?	2.0		
GENERAL			
15. Did the MBTI® Team Report meet your level of expectation in the information delivered?	3.0	Cases = 51 χ^2 = 6.19 p = .045	
16. Would you recommend the MBTI® Team Report for other teams?	3.0	Cases = 51 χ^2 = 9.07 p = .011	
df = 2 (all)			

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respondents completed the questionnaire, the more likely they were to agree that the strengths and weaknesses were accurate and useful, the higher they ranked the report in meeting their expectations, and the more inclined they were to recommend it to others.

Leaders. A final, exploratory variable of interest was whether team leaders answered the questions differently than team members. Question 18 asked whether the respondent was a leader of the team or not. The variable was collected in nominal form (Yes = 1 or No = 2), and the Mann-Whitney U was used to compare the medians of each group to each question independently. Data from five of the questions (5, 7, 8, 10, 13) showed significant differences in the responses of the team leaders and team members. In each case, team leaders scored the questions more positively than the team members. Leaders reported greater accuracy and usefulness (Questions 5 and 7) in the problem-solving process section than team members did. Question 10 asked whether the respondents knew why the team leader ordered the MBTI® Team Report for their team. It is fairly obvious that the team leaders would score this question high, but the team members could have scored it just as high if the intentions from their team leaders had been clearly communicated. Two of the questions (8 and 13) asked whether the team took action on the information. Although team leaders scored these questions higher than team members, these were two of the lowest scoring questions overall in the study.

Overall Satisfaction. Questions 15 and 16 (TABLE 1) assessed general satisfaction by asking respondents if the MBTI® Team Report met their expectations, and if they would recommend it for other teams. Both scored a median response of 3 ("Yes, mostly"). In addition, the overall satisfaction was determined by the first nine variables, which were represented by the first 16 questions. Questions 8, 13, and 14 scored a median score of 2 ("Some"), whereas the remaining 13 questions all scored a median of 3 ("Yes, mostly"). Therefore, the results indicated overall satisfaction with the MBTI® Team Report.

CONCLUSION AND APPLICATION

Overall, the results of this study suggest the respondents

> *Not surprisingly, team leaders had a more positive perspective on the accuracy and usefulness of the information than the team members.*

valued the information from the MBTI® Team Report, as assessed by the TR Research Questionnaire. The sample participants found the MBTI® Team Report accurate and useful in all 4 questions in the *Strengths and Weaknesses* section, and they reported 4 out of 5 questions positively in the *Problem-Solving Process* section. Team members thought the advice was good (questions 10–12) in the *Action Plan* section, but they did not report as high a median score for acting on the new information. In theory, if team members found the reported analysis to be accurate and useful, they would be more likely to implement the information to increase their team performance. However, the responses to the implementation questions failed to support this.

The time-interval results raised a number of concerns for the long-term effectiveness of the MBTI® Team Report. Was there enough time for teams to implement the information and see results? Did the passage of time decrease interest in the report? Was it that members failed to see changes that had occurred in their team, leaders, or work environment? Was there a lack of structure for follow-up from the organization or team leader? Did the team know how to implement change based on the new information? These results raise concerns for practitioners, and future studies are needed to determine whether or not teams implement constructive changes over time. If not, the question still remains, was the MBTI® Team Report useful and worth the investment of time and money for the organizations?

Not surprisingly, team leaders had a more positive perspective on the accuracy and usefulness of the information than the team members. The team leaders also perceived more actions being taken by their teams as a result of learning the new information than did team members. Perhaps the leaders themselves began to act on the information and assumed others did as well. An equally plausible explanation is that the leaders have more information than team members and take a broader perspective.

The intended use of the MBTI® Team Report (and presumably the intention of the team leaders) is for teams to incorporate and act upon the suggested information. There are many reasons team leaders

might have chosen to introduce the MBTI® Team Report to their teams. For any of those reasons, the team members must agree with the information reported about the group before they will take any action. Although such agreement is indicated overall in this study, the application and action steps suggest that insight is not the same as change.

In summary, participants were satisfied with the three sections of the MBTI® Team Report, with team leaders reporting greater satisfaction than team members on some measures. The greater the interval of time between receiving the MBTI® Team Report and completing the questionnaire for this study, the less positive were the perceptions of the MBTI® Team Report. Because team members scored the report lower over time and had a lower response to the implementation questions, the efficacy of the MBTI® Team Report needs further study.

FUTURE RESEARCH

Future assessments of the MBTI® Team Report might include

- a longer time frame for data collection,
- a larger sample size,
- a collection of participants' types,
- a distribution system with fewer "points of contact" for the questionnaires (to calculate a response rate), and an analysis of entire teams.

A case study of team reactions over a period of time would provide insight into the long-term effects of the MBTI® Team Report. Part of a study might examine how team members were prepared to receive their MBTI® Team Report: For example, what expectations were communicated to the team before the session? A final suggestion is to examine other sections of the MBTI® Team Report.

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